Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A linear switch actuator for actuating a movable element within a microwave switch, said linear switch actuator comprising:

(a) a ferromagnetic shield having a hollow tubular portion and first and second end plates, ~~an interior region~~ and first and second apertures formed within said first and second end plates, said shield defining a single and uninterrupted internal region that extends between the inside surfaces of the hollow tubular portion;

(b) a magnetic coil having a longitudinal axis and positioned within the interior region of said shield and adapted to receive an energizing current;

(c) a moveable armature assembly adapted to be coupled to the movable element and positioned along the longitudinal axis of said coil and extending through the first and second apertures of said shield, said armature assembly being moveable between a first stroke end position and a second stroke end position, said armature assembly comprising:

(i) a ferromagnetic rod having a first end and a second end;

(ii) a first permanent magnet coupled to said first end of the rod and positioned within said first aperture, said first permanent magnet having a first pole orientation and being positioned substantially outside said shield at the first stroke end position;

(iii) a second permanent magnet being coupled to said second end of said rod and positioned within said second aperture and having a second pole orientation opposite to that of the first pole orientation, said second permanent magnet and being positioned substantially outside said shield at the second stroke end position;

(d) such that when said armature assembly is positioned at one of said first and second stroke end positions, the magnetic permeance associated with said armature assembly is maximized due to one of said first and second permanent magnets being positioned substantially outside said shield, resulting in bi-stable latching between said first and second stroke end positions; and

(e) such that when said energizing current is applied to said coil, said armature assembly moves between said first and second stroke end positions due to the combination of the force exerted on said armature assembly due to the magnetic interaction between said energized coil and the field associated with said first and second permanent magnets and the solenoid magnetic field associated with said coil which reduces the magnetic permeance associated with said armature assembly.

2. (Original) The actuator of claim 1, wherein said actuator further comprises an actuator piston coupled to one of said first and second permanent magnets, said actuator piston being adapted to engage said movable element.

3. (Original) The actuator of claim 1, wherein said shield includes a first ferromagnetic end plate containing said first aperture and a second ferromagnetic end plate containing said second aperture, such said first permanent magnet is positioned substantially past first ferromagnetic end plate at the first stroke end position and said second permanent magnet is positioned substantially past said second ferromagnetic end plate at the second stroke end position.

4. (Original) The actuator of claim 1, wherein said first and second permanent magnets are oriented such that the magnetic bias of each of said first and second permanent magnet is oriented axially with respect to the longitudinal axis of said coil.

5. (Original) The actuator of claim 1, further including a current source coupled to said coil, said current source being adapted to energize said coil by providing said energizing current to the coil in a first direction.

6. (Original) The actuator of claim 5, wherein said coil is made from bi-filar magnetic wire such that said actuator operates using an unipolar command circuit.

7. (Original) The actuator of claim 1, further including a current source coupled to said coil, said current source being adapted to energize said coil by providing said energizing current to the coil in first and second directions such that said actuator operates in a bi-polar manner.